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EXAMINER

CHANG, KENNETH W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/598,025 | Applicant(s) DE HAAN ET AL. | |
| | Examiner Kenneth Chang | Art Unit 4171 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☒ Claim(s) 1,2,5,6,9,10,12, and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/04/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This first non-final action is in response to the original filing of 08/16/2006.

Claims 1-26 are pending and have been considered as follows.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10598025, filed on 08/16/2006.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. ***Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.*** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

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(I) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities:

- Page 2 line 12 recites "playback such possibly" which should be "playback **of** such possibly".

Appropriate correction is required.

Claim Objections

4. Claims 1, 2, 5, 6, 9, 10, 12, and 13 are objected to because of the following informalities:

- Claim 1 line 3 recites "segmenting the stream of" which should be "segmenting **at least one** stream of";
- Claim 2 lines 3-4 recite "at least on data segment" which should be "at least **one** data segment";
- Claim 5 line 2 recites "streams of audiovisual data" which should be "streams of **different types of** audiovisual data";
- Claim 6 line 7 recites "in the stream" which should be "in **at least one** stream";
- Claim 9 line 3 recites "as the stream" which should be "as **at least one** stream";
- Claim 10 line 4 recites "and encrypted data on" which should be "and **partially** encrypted data **segments** on";
- Claim 12 line 3 recites "at least on data segment" which should be "at least **one** data segment";

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- Claim 13 line 4 recites “encrypted data on” which should be “encrypted data **segments** on”;

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the DVD standard" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation “that type of data” in line 6 where the term “that” renders indefiniteness. Clarify.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 18, 19, 21, and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As to Claims 18 and 21, the computer programme products are programs per se and non-statutory.

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As to Claims 19 and 22, although applicant recites that the data may be stored on "a whole range of data carriers" (e.g. see SPEC page 11, lines 10-13), no clear and deliberate definition of "data carrier" can be found in the specification. Based on the broadest reasonable interpretation, "data carrier" may be a non-computer readable storage medium and thus NOT able to impart any functionality of the recited computer program.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-5, 7, 8, and 10-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamaguchi et al. (US-20010042252-A1, hereinafter Yamaguchi).

As to Claim 1:

Yamaguchi discloses a method of encrypting a data stream comprising at least one stream of audiovisual data (e.g. see "For this communication satellite broadcast service, a plurality of transport streams (hereafter called "TS") for digital data are broadcasted in parallel" [0006]), comprising steps of,

- segmenting the stream of audiovisual data in data segments (e.g. see "The sending device 20 is installed in a broadcast station that provides a digital broadcast service, and sends an MPEG2 (Moving Picture Expert Group) TP (transport stream) as a broadcast wave via the broadcast satellite 30... The

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reception signal is composed of video data, audio data, interactive data" [0063];

see also "When transmitted, the MPEG2 TS 200 is divided into packets on a transmission channel. Each packet contains a different packet ID (PID), which is identification information for the packet" [0065]);

- providing the data segments with ID data (element ID) in an ID segment (component ID), the ID data being different from ID data being pre-determined (packet id, PID) to identify the type of data in the stream of audiovisual data (e.g. see "As shown in FIG. 2, the MPEG2 TS 200 includes components 217, 219, 201, 204, and other components that are not shown in the figure. Each component contains a different component ID that identifies the component" [0066]; see also "Each reception element has a different reception element ID to identify the reception element, and each presentation element has a different presentation ID to identify the presentation element" [0070]);
- partly encrypting the data segments, leaving the ID segment unencrypted (e.g. see "Encryption (hereafter, "scrambling") is performed separately for each TP (hereafter, "AV (audio-video) TP" [Transport Packets]) containing video data and audio data for programs" [0008]; see also "the restoring unit 103 separates this reception signal to generate the video data, the audio data, and the interactive data. The restoring unit 103 outputs the generated audio data and video data to the AV reproducing unit 105 as a first AV signal, and outputs the generated interactive data to the data presentation restricting unit 115 as a first data signal"

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[0104] where ID segment (component ID) is within interactive data which is processed in a separate first data signal than the AV signal).

As to Claim 2:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- creating data packs (component), each data pack comprising at least one data segment (packet) and wherein the step of partly encrypting the data segments, the ID segment of at least one data segment is unencrypted (e.g. see "A plurality of packets that has the same PID to be transmitted make up the same component" [0065]; see also "As shown in FIG. 2, the MPEG2 TS 200 includes components 217, 219, 201, 204, and other components that are not shown in the figure" [0066]).

As to Claim 3:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- multiple streams of different types of audiovisual data and data segments of at least one stream of audiovisual data are encrypted (e.g. see "For this communication satellite broadcast service, a plurality of transport streams (hereafter called "TS") for digital data are broadcasted in parallel. The number of transport streams broadcasted in parallel is equal to a number of transponders. A plurality of transport packets (hereafter "TP"), which contain data corresponding to a plurality of programs, are time-division multiplexed into each TS. A user

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selects a given program contained in a TS, and watches the program" [0006]; see also "Encryption (hereafter, "scrambling") is performed separately for each TP (hereafter, "AV (audio-video) TP") containing video data and audio data for programs" [0008]).

As to Claim 4:

Yamaguchi discloses all the limitations of Claim 1 and Claim 3 (see discussions above for Parent Claims 1 and 3), further comprising,

- data segments of at least one stream of audiovisual data is provided with ID segments comprising ID data being different from ID data being pre-determined to identify the type of data in the stream of audiovisual data (e.g. see "As shown in FIG. 2, the MPEG2 TS 200 includes components 217, 219, 201, 204, and other components that are not shown in the figure. Each component contains a different component ID that identifies the component" [0066]; see also "Each reception element has a different reception element ID to identify the reception element, and each presentation element has a different presentation ID to identify the presentation element" [0070]).

As to Claim 5:

Yamaguchi discloses all the limitations of Claim 1 and Claim 3 (see discussions above for Parent Claims 1 and 3), further comprising,

- the multiple streams of audiovisual data are provided simultaneously and the method further comprising the step of multiplexing the segments comprising data of the multiple streams of audiovisual data to a further data stream (e.g. see "A

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plurality of transport packets (hereafter "TP"), which contain data corresponding to a plurality of programs, are time-division multiplexed into each TS. A user selects a given program contained in a TS, and watches the program" [0006]; see also "The combining unit 106 receives the second AV signal from the AV reproducing unit 105, and a second data signal from the data analyzing unit 104. The combining unit 106 then combines the second AV signal and the second data signal to generate a data-AV combined signal, and outputs the generated data-AV combined signal to the monitor connected to the interactive data receiving device 100" [0108]).

As to Claim 7:

Yamaguchi discloses all the limitations of Claim 1 and Claim 2 (see discussions above for Parent Claims 1 and 2), further comprising,

- the data packs are MPEG-2 data stream packs (e.g. see "The sending device 20 is installed in a broadcast station that provides a digital broadcast service, and sends an MPEG2 (Moving Picture Expert Group) TP (transport stream) as a broadcast wave via the broadcast satellite 30" [0063]; see also "When transmitted, the MPEG2 TS 200 is divided into packets on a transmission channel" [0065]).

As to Claim 8:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

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- ID data being pre-determined to identify the type of data in the stream of audiovisual data is pre-determined by the DVD standard (e.g. see "The sending device 20 is installed in a broadcast station that provides a digital broadcast service, and sends an MPEG2 (Moving Picture Expert Group) TP (transport stream) as a broadcast wave via the broadcast satellite 30" [0063]; see also "When transmitted, the MPEG2 TS 200 is divided into packets on a transmission channel. Each packet contains a different packet ID (PID), which is identification information for the packet" [0065] where the DVD standard inherently uses the MPEG2 format in its specification).

As to Claim 10:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), and a method of storing a data stream comprising at least one stream of audiovisual data, comprising the steps of,

- receiving the data stream (e.g. see "As shown in FIG. 4, the interactive data receiving device 100 includes a receiving unit 101, a specifying unit 102, a restoring unit 103, a data analyzing unit 104, an AV reproducing unit 105, a combining unit 106, a control unit 107, a data storing unit 108" [0086]; see also "The receiving unit 101 receives an MPEG2 TS (hereafter, "TS"), which is transmitted repeatedly from the sending device 20 as a broadcast wave, and extracts a reception signal and viewing permission information from the received TS. This reception signal contains video data, audio data, and interactive data.

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The receiving unit 101 then outputs the extracted reception signal to the restoring unit 103" [0097]);

- storing the segmented and encrypted data on a storage medium (e.g. see "The data storing unit 108 is composed of semiconductor memory, and has areas that store a presentation element, a purchase state, a component ID, a reception element ID, and a presenting element flag, as shown in FIG. 5" [0088]).

As to Claim 11:

Yamaguchi discloses a circuit (sending device 20) for encrypting a data stream comprising at least one stream of audiovisual data, comprising (see Applicant Spec. Page 11 lines 8-9, "For example, a function being described as being carried out by one element may also be carried out by multiple elements and vice versa [multiple functions carried out by one element]"),

- a segmenting unit (sending device 20's processor) for segmenting the stream of audiovisual data in data segments (e.g. see "The sending device 20 is installed in a broadcast station that provides a digital broadcast service, and sends an MPEG2 (Moving Picture Expert Group) TP (transport stream) as a broadcast wave via the broadcast satellite 30" [0063]; see also "When transmitted, the MPEG2 TS 200 is divided into packets on a transmission channel" [0065] where sending device 20 inherently uses a processor for these functions);
- a unit (sending device 20's processor) for providing the data segment with ID data in an ID segment, the ID data 25 being different from ID data being pre-determined to identify the type of data in the stream of audiovisual data (e.g. see

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“As shown in FIG. 2, the MPEG2 TS 200 includes components 217, 219, 201, 204, and other components that are not shown in the figure. Each component contains a different component ID that identifies the component” [0066]; see also “Each reception element has a different reception element ID to identify the reception element, and each presentation element has a different presentation ID to identify the presentation element” [0070]);

- an encryption unit (sending device 20's processor) for partly encrypting the data segments, leaving the ID segment unencrypted (e.g. see “Encryption (hereafter, "scrambling") is performed separately for each TP (hereafter, "AV (audio-video) TP" [Transport Packets]) containing video data and audio data for programs” [0008]; see also “the restoring unit 103 separates this reception signal to generate the video data, the audio data, and the interactive data. The restoring unit 103 outputs the generated audio data and video data to the AV reproducing unit 105 as a first AV signal, and outputs the generated interactive data to the data presentation restricting unit 115 as a first data signal” [0104] where ID segment (component ID) is within interactive data which is processed in a separate first data signal than the AV signal).

As to Claim 12:

Yamaguchi discloses all the limitations of Claim 11 (see discussion above for Parent Claim 11), further comprising,

- a packing unit (sending device 20's processor) for creating data packs, each data pack comprising at least one data segment; and wherein in the step of partly

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encrypting the data segments, the ID segment of at least one data segment is unencrypted (e.g. see "A plurality of packets that has the same PID to be transmitted make up the same component" [0065]; see also "As shown in FIG. 2, the MPEG2 TS 200 includes components 217, 219, 201, 204, and other components that are not shown in the figure" [0066]).

As to Claim 13:

Yamaguchi discloses all the limitations of Claim 11 (see discussion above for Parent Claim 11) and an apparatus for storing data, comprising,

- a receiver for receiving data (e.g. see "As shown in FIG. 4, the interactive data receiving device 100 includes a receiving unit 101" [0086]);
- a storage device (data storing unit) for storing the encrypted data on a storage medium (e.g. see "The data storing unit 108 is composed of semiconductor memory, and has areas that store a presentation element, a purchase state, a component ID, a reception element ID, and a presenting element flag, as shown in FIG. 5" [0088]).

As to Claim 14:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1) and a method of decrypting audiovisual data, comprising the steps of,

- decrypting the partly encrypted data segments (e.g. "A descrambling key to descramble such scrambled AV TP [audio-video transport packets], and program attribute information for the programs make up program information (hereafter, "ECM") and are contained in another TP (hereafter, "ECM TP"). Such ECM TP

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and AV TP are broadcasted together. This ECM TP is also scrambled. A work key to descramble the scrambled ECM TP, and subscription information make up individual information (hereafter, "EMM") and are stored in an integrated circuit (IC) card, which is inserted into each receiving device" [0008]);

- recognising that the data carried by the ID segment is different from ID data being pre-determined to identify the type of data in the stream of audiovisual data and recognising the actual type of data comprised by the data segments (e.g. see "The data judging unit 117 then compares the ID of the recognized link destination with the ID of the currently-presented presentation element to judge whether a presentation element of the link destination and the currently-presented presentation element belong to the same component" [0126]);
- forming a stream of audiovisual data from the data segments (e.g. see "The combining unit 106 receives the second AV signal from the AV reproducing unit 105, and a second data signal from the data analyzing unit 104. The combining unit 106 then combines the second AV signal and the second data signal to generate a data-AV combined signal, and outputs the generated data-AV combined signal to the monitor connected to the interactive data receiving device 100" [0108]).

As to Claim 15:

Yamaguchi discloses a method of retrieving and rendering stored data, comprising the steps of,

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- retrieving data stored on a storage medium (e.g. see “The receiving unit 101 receives an MPEG2 TS (hereafter, "TS"), which is transmitted repeatedly from the sending device 20 as a broadcast wave, and extracts a reception signal and viewing permission information from the received TS. This reception signal contains video data, audio data, and interactive data. The receiving unit 101 then outputs the extracted reception signal to the restoring unit 103, and the extracted viewing permission information to the specifying unit 102” [0097]);
- decrypting the partly encrypted data segments (e.g. see “A descrambling key to descramble such scrambled AV TP [audio-video transport packets], and program attribute information for the programs make up program information (hereafter, "ECM") and are contained in another TP (hereafter, "ECM TP"). Such ECM TP and AV TP are broadcasted together” [0008]);
- recognizing that the data carried by the ID segment is different from ID data being pre-determined to identify the type of data in the stream of audiovisual data and recognizing the actual type of data comprised by the data segments (e.g. see “The data judging unit 117 then compares the ID of the recognized link destination with the ID of the currently-presented presentation element to judge whether a presentation element of the link destination and the currently-presented presentation element belong to the same component” [0126]);
- forming a stream of audiovisual data from the data segments (e.g. see “The combining unit 106 receives the second AV signal from the AV reproducing unit 105, and a second data signal from the data analyzing unit 104. The combining

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unit 106 then combines the second AV signal and the second data signal to generate a data-AV combined signal, and outputs the generated data-AV combined signal to the monitor connected to the interactive data receiving device 100" [0108]);

- rendering the decrypted stream of audiovisual data (e.g. see "When the purchase state signal indicates the preview state (step S301), the data analyzing unit 104 generates video data, which is a second data signal, referring to a bitmap table, a text table, and the like included in a firstly-presented presentation element (step S304), and outputs the generated second data signal to the combining unit 106 (step S305). The processing is then completed" [0207]).

As to Claim 16:

Yamaguchi discloses all the limitations of Claim 11 (see discussion above for Parent Claim 11) and a circuit for decrypting audiovisual data, comprising,

- a decryption unit (integrated circuit (IC) card) for decrypting the partly encrypted data segments (e.g. see "A descrambling key to descramble such scrambled AV TP, and program attribute information for the programs make up program information (hereafter, "ECM") and are contained in another TP (hereafter, "ECM TP"). Such ECM TP and AV TP are broadcasted together. This ECM TP is also scrambled. A work key to descramble the scrambled ECM TP, and subscription information make up individual information (hereafter, "EMM") and are stored in an integrated circuit (IC) card, which is inserted into each receiving device. The

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scrambled ECM TP is first descrambled with the work key on the IC card, and the descrambling key is extracted from the descrambled ECM TP" [0008]);

- an identification unit (data judging unit 117) for recognising that the data carried by the ID segment is different from ID data being pre-determined to identify the type of data in the stream of audiovisual data and recognising the actual type of data comprised by the data segments (e.g. see "The data judging unit 117 then compares the ID of the recognized link destination with the ID of the currently-presented presentation element to judge whether a presentation element of the link destination and the currently-presented presentation element belong to the same component" [0126]);
- a streaming unit (combining unit 106) for forming a stream of audiovisual data from the data segments (e.g. see "The combining unit 106 receives the second AV signal from the AV reproducing unit 105, and a second data signal from the data analyzing unit 104. The combining unit 106 then combines the second AV signal and the second data signal to generate a data-AV combined signal, and outputs the generated data-AV combined signal to the monitor connected to the interactive data receiving device 100" [0108]).

As to Claim 17:

Yamaguchi discloses all the limitations of Claim 16 (see discussion above for Parent Claim 16) and an apparatus for rendering and retrieving audiovisual data, comprising,

- a storage device (data storing unit) for retrieving data from a storage medium (e.g. see "The data storing unit 108 is composed of semiconductor memory, and

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has areas that store a presentation element, a purchase state, a component ID, a reception element ID, and a presenting element flag, as shown in FIG. 5" [0088]);

- a circuit (data analyzing unit) for rendering the decrypted stream of audio visual data (e.g. see "When the purchase state signal indicates the preview state (step S301), the data analyzing unit 104 generates video data, which is a second data signal, referring to a bitmap table, a text table, and the like included in a firstly-presented presentation element (step S304), and outputs the generated second data signal to the combining unit 106 (step S305). The processing is then completed" [0207]).

As to Claim 18:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1) and a computer programme product comprising,

- computer readable instruction for programming a processing unit for executing the method according to claim 1 (e.g. see "The present invention may be a method that achieves the processing as described above. The present invention may also be a computer program that has a computer achieve this method, or digital signals for this computer program" [0255]).

As to Claim 19:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- a data carrier (CD-ROM, DVD, etc.) carrying the computer programme product as claimed in claim 1 (e.g. see "The present invention may be the above

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computer program or digital signals recorded on a computer-readable recording medium, such as a floppy disc, hard disk, a CD-ROM (read only memory), a magneto-optical disc (MO), a DVD (digital versatile disc), a DVD-ROM, a DVD-RAM, and semiconductor memory" [0256]).

As to Claim 20:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- a programmed computer (computer system) enabled to execute the method according to claim 1 (e.g. see "The present invention may be a computer system that comprises a microprocessor and memory which stores the above computer program, and the microprocessor may execute the stored computer program to achieve the present invention. The above computer program or digital signals may be recorded on the computer-readable recording medium to be distributed via the network or other distribution methods to a computer system" [0258]).

As to Claim 21:

Yamaguchi discloses all the limitations of Claim 1 and Claim 14 (see discussions above for Parent Claims 1 and 14), further comprising,

- a computer programme product comprising computer readable instructions for programming a processing unit for executing the method according to claim 14 (e.g. see "The present invention may be a computer system that comprises a microprocessor and memory which stores the above computer program, and the microprocessor may execute the stored computer program to achieve the

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present invention. The above computer program or digital signals may be recorded on the computer-readable recording medium to be distributed via the network or other distribution methods to a computer system" [0258]).

As to Claim 22:

Yamaguchi discloses all the limitations of Claim 1 and Claim 14 (see discussions above for Parent Claims 1 and 14), further comprising,

- a data carrier (CD-ROM, DVD, etc.) carrying the computer programme product as claimed in claim 14 (e.g. see "The present invention may be the above computer program or digital signals recorded on a computer-readable recording medium, such as a floppy disc, hard disk, a CD-ROM (read only memory), a magneto-optical disc (MO), a DVD (digital versatile disc), a DVD-ROM, a DVD-RAM, and semiconductor memory" [0256]).

As to Claim 23:

Yamaguchi discloses all the limitations of Claim 1 and Claim 14 (see discussions above for Parent Claims 1 and 14), further comprising,

- a programmed computer (computer system) enabled to execute the method according to claim 14 (e.g. see "The present invention may be a computer system that comprises a microprocessor and memory which stores the above computer program, and the microprocessor may execute the stored computer program to achieve the present invention. The above computer program or digital signals may be recorded on the computer-readable recording medium to be

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distributed via the network or other distribution methods to a computer system"
[0258]).

As to Claim 24:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- a data carrier (recording medium) carrying data encrypted (first information) using the method according to claim 1 (e.g. see “The digital broadcast receiving device of claim 1, wherein the broadcast wave also includes second information which shows conditions for using the broadcast wave, wherein the first information is recorded on a recording medium, wherein the judging means includes: obtaining means for obtaining the first information from the recording medium” [Claim 2 lines 1-9]).

As to Claim 25:

Yamaguchi discloses all the limitations of Claim 1 and Claim 24 (see discussions above for Parent Claims 1 and 24), further comprising,

- a data carrier (recording medium) according to claim 24 is a DVD recordable disc (e.g. see “a computer-readable recording medium, such as a floppy disc, hard disk, a CD-ROM (read only memory), a magneto-optical disc (MO), a DVD (digital versatile disc), a DVD-ROM, a DVD-RAM, and semiconductor memory” [0256] where recording medium is defined to include DVD-RAM which is a DVD recordable disc).

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As to Claim 26:

Yamaguchi discloses all the limitations of Claim 1 and Claim 24 (see discussions above for Parent Claims 1 and 24), further comprising,

- a data carrier (recording medium) according to claim 24 is a DVD rewritable disc (e.g. see “a computer-readable recording medium, such as a floppy disc, hard disk, a CD-ROM (read only memory), a magneto-optical disc (MO), a DVD (digital versatile disc), a DVD-ROM, a DVD-RAM, and semiconductor memory” [0256] where recording medium is defined to include DVD-RAM which is a DVD rewritable disc).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Yamaguchi et al. (US-20010042252-A1, hereinafter Yamaguchi) in view of Ozawa et al. (US-20010030959-A1, hereinafter Ozawa).

As to Claim 6:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), further comprising,

- data segments are provided with further ID data in the ID segment, the further ID data being pre-determined to identify the type of data in the stream of audiovisual

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data (e.g. see "Each packet contains a different packet ID (PID), which is identification information for the packet. A plurality of packets that has the same PID to be transmitted make up the same component" [0065]);

but does not specifically disclose,

- the further ID data being in a further step replaced by the ID data being different from ID data being pre-determined to identify the type of data in the stream of audiovisual data as claimed.

However, Ozawa does disclose pre-determined ID data (Packet ID and Table ID) being in a further step replaced by ID data (VCI and SI data) being different from ID data being pre-determined to identify the type of data in a stream of audiovisual data.

- (e.g. see "the ATM packet 300 of FIG. 3 is formatted with a Virtual Channel Identifier(VCI) in the header 310 as illustrated with the SI data in the payload portion 320 of the packet 300. ***The VCI is a channel number that is associated with the SI data in 320 and is used to replace the functionality of the Packet ID and Table ID filtering*** using in an inband demultiplexer based system (section and version checking are done using the system processor in the present embodiment, but this is not to be limiting). The VCI and SI data are inserted in the ATM packet at the cable head end 10. The VCI serves a function similar to the PID in the satellite system to permit demultiplexing in the cable settop box. That is, the OOB data are a stream of multiplexed SI data packets formatted as ATM data with the VCI providing the key to demultiplexing the data" [0053])

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One of ordinary skill in the art at the time applicant's invention was made would have been motivated by Ozawa to modify Yamaguchi to include the further ID data being in a further step replaced by the ID data being different from ID data being pre-determined to identify the type of data in the stream of audiovisual data as claimed because the use of Ozawa could provide Yamaguchi the ability to replace predetermined ID data with a different system of ID data, and one of ordinary skill in the art would recognize the enhanced efficiency and security gained from using a more efficient ID data system.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US-20010042252-A1, hereinafter Yamaguchi) in view of Nakagawa et al. (US-20010028725-A1, hereinafter Nakagawa).

As to Claim 9:

Yamaguchi discloses all the limitations of Claim 1 (see discussion above for Parent Claim 1), but does not disclose,

- providing an empty stream of audiovisual data of the same type as the stream of audiovisual data for which non pre-determined ID data has been provided, the empty stream of audiovisual data being provided with ID data pre-determined for identifying that type of data as claimed.

However, Nakagawa does disclose providing an empty stream (If IPMPS_Type=2, payload of decoded data is cleared) of audiovisual data of the same type as the stream of audiovisual data for which non pre-determined ID data has been provided, the empty stream of audiovisual data being provided with ID data (IPMP_Type) pre-determined for identifying that type of data.

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- (e.g. see “On the other hand, if it is determined in step S307 that the user is not authentic (the user has not paid a given fee), the flow advances to step S308 to control playback quality of that object. In step S308, data decoded in step S305 is processed to control playback quality. How to process the data can be determined by the IPMP controller 20 depending on the format of the IPMP information” [0327]; see also “If IPMPS_Type=2, the payload of decoded data is cleared to black out a moving image or inhibit audio playback” [0330]; see also “As described above, according to this embodiment, upon decoding and playing back information from a data stream that contains a plurality of object streams, the playback quality of copyrighted objects can be controlled” [0334])

One of ordinary skill in the art at the time applicant's invention was made would have been motivated by Nakagawa to modify Yamaguchi to include providing an empty stream of audiovisual data of the same type as the stream of audiovisual data for which non pre-determined ID data has been provided, the empty stream of audiovisual data being provided with ID data pre-determined for identifying that type of data as claimed because the use of Nakagawa could provide Yamaguchi the ability to provide an empty stream of audiovisual data of the same type as another audiovisual data stream for which non pre-determined ID data has been provided, for the purpose of enhancing control over output data streams gained by being able to provide for an empty stream of audiovisual data for inhibiting audio or image playback to the unauthorized user.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Ando et al. (US-20010009604-A1) is cited for teaching a DVD recording/playback system, a set top box STB that receives an MPEG transport stream constituted by a plurality of transport packets, and using management data generated using data in a packet header as control data [0078].

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kenneth Chang whose telephone number is (571)270-7530. The examiner can normally be reached on Monday-Friday 8:00am-5:30pm (Alt. Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel H. Pan can be reached on 571-272-4172. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. W. C./

Examiner, Art Unit 4717

/Daniel Pan/

Supervisory Patent Examiner, Art Unit 4171